EMERGENCY EXPRESS TERMS OF PROPOSED BUILDING STANDARDS OF THE STATE FIRE MARSHAL (SFM)

REGARDING THE ADOPTION OF PROPOSED AMENDMENTS TO THE 2001 CALIFORNIA FIRE CODE, CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 9

Legend for Express Terms:

- 1. The proposed SFM amendments are shown as Italic font and underlined.
- 2. The proposed SFM amendment to Article 91 is shown as *italic font and double underlined*.
- The repealed text that is proposed by the SFM is shown as single Strikeout.

DEFINITIONS AND ABBREVIATIONS

ARTICLE 2 - DEFINITIONS AND ABBREVIATIONS

SECTION 210 - I

[FOR SFM] NON-ACCESSIBLE AREA is an enclosed area that creates a cavity by the application of any construction feature and or building materials. This area shall be recognized by the authority having jurisdiction as a separation between the non-accessible space and any adjacent, occupied space of the building.

SECTION 214 - M

[FOR SFM] MODERNIZATION PROJECT is any construction effort that has an estimated total cost in excess of \$200,000.00 that is intended to modify a permanent school building or structure and or the addition of a new school building or structure used to serve or house students from kindergarten through twelfth grade (K-12).

Modernization efforts shall apply strictly to a public school that was established prior to July 1. 2002 and is funded pursuant to the Education Code, section 17074.56 and Education Code commencing with section 17070.10.

Modernization projects that are to be completed in more than one phase, may defer the installation of the automatic fire detection and alarm systems until the final phase of the modernization project.

<u>Solely for the purposes of Education Code section 17074.20, routine maintenance and repair</u> work shall not be considered a modernization project.

SECTION 215 N

[FOR SFM] NEW PUBLIC SCHOOL CAMPUS is an educational institution established on or after July 1, 2002 that houses and or serves students from kindergarten through twelfth grade (K-12) and is funded pursuant to the Education Code, commencing with section 17070.10.

SECTION 217 P

[FOR SFM] PORTABLE BUILDING is a classroom building or structure of modular design and construction that houses and or serves student from kindergarten through twelfth grade (K-12) and is funded pursuant to the Education Code, commencing with section 17070.10 and meets all of the following criteria:

- ♦ The portable building or structure is designed and constructed to be relocatable and transportable over public streets.
- ♦ The portable building or structure is designed and constructed for relocation without detaching the roof or the floor from the building or structure.
- The portable building or structure is sited upon a temporary foundation in a manner that is designed to permit easy removal.
- ♦ The portable building or structure has a floor area of 2,000 square feet or less when measured from the extent of the exterior walls.
- ♦ The portable building shall be removed within three years of installation or the school administration may request a three year extension pursuant to Education Code section 17074.54 (a) and (b).

NOTE: The specific statutes authorizing the SFM to propose these new regulations as shown above relating to E Occupancies are as follows:

- Education Code sections 17074.50 17074.52 & 17074.54
- Health and Safety Code section 13143

ARTICLE 10 - FIRE PROTECTION SYSTEMS AND EQUIPMENT

SECTION 1003 - FIRE - EXTINGUISHING SYSTEMS

1003.1 Installation Requirements.

1003.2.4 Group E Occupancies.

1003.2.4.1 General

1003.2.4.4 [For SFM] Public Schools - Automatic Sprinkler System Requirements

1003.2.4.4.1 [For SFM] New Public School Campus. A State Fire Marshal approved automatic sprinkler system shall be provided on all new public school campus as defined in section 215 and maintained in accordance with the California Building Code and Article 91. See section 1006.2.4.2.2.1.1 for automatic detection requirements.

<u>1003.2.4.4.2 [For SFM] Permanent Portable Buildings.</u> A portable building that is used to serve or house students and is certified, as a permanent building on a new public school campus by the public school administration shall comply with the requirements of section 1003.2.4.4.1.

1003.2.4.4.3 [For SFM] Fire-Resistive Substitution for New Public Schools. All buildings of a new public school campus as defined in section 215 shall be entitled to include in the design and construction documents, all of the applicable fire-resistive construction substitutions as permitted in the California Building Code, section 508.

NOTE: The specific statutes authorizing the SFM to propose these new regulations shown above, relating to E Occupancies is as follows:

- Education Code section 17074.50 (a)
- Health and Safety Code section 13143

SECTION 1006.

1006.2.4 Group E Occupancies.

Section 1006.2.4.1 General

1006.2.4.2 Smoke Detectors

1006.2.4.3 Exterior alarm-signaling device.

<u>SECTION 1006.2.4.4 [FOR SFM] PUBLIC SCHOOL – AUTOMATIC FIRE ALARM SYSTEM REQUIREMENTS.</u>

1006.2.4.4.1 New Public School Campus. On or after July 1, 2002, a State Fire Marshal approved and listed automatic fire alarm system shall be provided on all new public school campus as defined in section 215. The approved fire alarm system shall be both automatic and

manual and maintained in accordance with the California Electrical Code and Article 91. At least one manual box shall be installed for the purpose of manually initiating the fire alarm system.

1006.2.4.4.2 Modernization Project. A State Fire Marshal approved and listed fire alarm system shall be provided in all modernization projects as defined in section 214. The approved fire alarm system shall be both automatic and manual and maintained in accordance with the California Electrical Code and Article 91. When the requirements of this section are met, manual fire alarm boxes are not required throughout the modernization project. At least one manual box shall be installed for the purpose of manually initiating the fire alarm system.

NOTE: The specific statutes authorizing the SFM to propose these new regulations as shown above, relating to E Occupancies is as follows:

- ◆ Education Code section 17074.50(b) & 17074.52(a)
- Health and Safety Code section 13143

<u>SECTION 1006.2.4.4.3 [FOR SFM] PORTABLE BUILDINGS – AUTOMATIC FIRE ALARM SYSTEM REQUIRMENTS</u>

1006.2.4.4.3.1 Permanent-Portable Buildings. A portable building that is used to serve or house students from kindergarten through twelfth grade (K-12) and is certified as a permanent building on a new public school campus by the public school administration shall comply with the requirements of section 1006.2.4.4.1.

NOTE: The specific statutes authorizing the SFM to propose these new regulations as shown in section 1006.2.4.4.3.1, relating to E Occupancies are as follows:

- Education Code section 17074.50 & 17074.52 & 17074.54
- Health and Safety Code section 13143

<u>1006.2.4.4.3.2 Permanent-Portable Building Modernization Project.</u> A permanent- portable building to undergo modernization efforts, and is used to serve or house students from kindergarten through twelfth grade (K-12) that is certified as a permanent building by the public school administration shall comply with the requirements of section 1006.2.4.4.2.

NOTE: The specific statutes authorizing the SFM to propose these new regulations as shown in section 1006.2.4.4.3.2, relating to E Occupancies are as follows:

- ♦ Education Code sections 17074.50(b) & 17074.52 (a) (b)
- ♦ Health and Safety Code section 13143

<u>1006.2.4.4.3.3 Exempted Portable Building.</u> A portable building as defined in section 217 that is certified by the public school administration as being sited on campus for less than three years is not required to install an automatic fire detection, alarm or sprinkler system.

NOTE: The specific statutes authorizing the SFM to propose these new regulations as shown in section 1006.2.4.4.3.3, relating to E Occupancies are as follows:

- ♦ Education Code section 17074.54
- Health and Safety Code section 13143

SECTION 1006.2.4.2.2.1 [FOR SFM] PUBLIC SCHOOL - SMOKE DETECTORS.

1006.2.4.2.2.1.1 [For SFM] Automatic Detection. Smoke detectors shall be used as the primary method of automatic alarm initiation except in areas where the environment or ambient conditions exceed smoke detector installation guidelines; another method of automatic detection shall be used. In areas containing sprinklers, heat detectors may be omitted. Smoke detectors shall be designed, installed and maintained in accordance with NFPA 72 as amended in Article 91.

Smoke detectors shall be located within every room and area. Smoke detectors shall be installed at the ceiling. Where the ceiling creates a "ceiling-plenum" or a space above the ceiling for non-environmental air, automatic sprinklers shall be installed to protect such spaces. Where the ceiling is attached directly to the underside of the roof structure, both automatic detectors and sprinklers shall be installed. Smoke detectors are not required in non-accessible areas as defined in section 210.

NOTE: The specific statutes authorizing the SFM to propose these new regulations as shown in section 1006.2.4.2.2.1.1, relating to E Occupancies are as follows:

- ♦ Education Code section 17074.50 & 17074.52
- Health and Safety Code section 13143

1006.2.4.2.2.1.2 [For SFM] Increased travel distance and travel through adjoining rooms. Smoke detectors shall be installed when required by the California Building Code, section 1007.3 for increases in travel distance to exits and to allow the only means of egress from a room to be through adjoining or intervening room.

NOTE: The specific statutes authorizing the SFM to propose these new regulations as shown above, relating to E Occupancies is as follows:

- ◆ Education Code section 17074.50(a)
- Health and Safety Code section 13143

1006.2.4.2.2.1.3 [For SFM] Notification. The system notification shall be consistent with the requirements for audible and visible notification requirements of the NFPA 72 as amended in Article 91. Audible notification shall comply with the American National Standards Institute (ANSI) S3.41 Emergency Evacuation Signal. An audible alarm notification appliance shall be mounted on the exterior of buildings to alert occupants in and around the playground area.

NOTE: The specific statutes authorizing the SFM to propose these new regulations as shown above, relating to E Occupancies is as follows:

- Education Code section 17074.50 & 17074.52
- Health and Safety Code section 13143

1006.2.4.2.2.1.4 [For SFM] Annunciation. Annunciation of the fire alarm system shall comply with the requirements of section 1006.3.3.7.

1006.2.4.2.2.1.5 [For SFM] Supervising Station. Fire alarm systems shall transmit the alarm, supervisory and trouble signals to an approved supervising station required by NFPA 72, as amended in Article 91. The supervising station shall be listed as either UUFX (Central Station) or UUJS (local, auxiliary, remote, proprietary) by the Underwriters Laboratory Inc. (UL) or shall meet the requirements of Article 91, reference standard, FM 3011- Approval Standard for Central Station Service for Fire Alarm and Protective Equipment Supervision, 1999 edition.

NOTE: The specific statutes authorizing the SFM to propose these new regulations as shown above, relating to E Occupancies is as follows:

- ♦ Education Code section 17074.50. 17074.50 & 17074.52
- ♦ Health and Safety Code section 13143

<u>CALIFORNIA STANDARDS</u> ARTICLE 91-CALIFORNIA STANDARDS

9101.1 California Standards. The California Standards referred to as in various parts of this code, which are listed in Section 9002, are hereby declared to be part of this code and are referred to in this code as "CFC Standards."

Whenever this code refers to a UBC or UFC Standard, it shall be construed to mean the appropriate State Fire Marshal (SFM) adopted standard, as listed in this chapter.

<u>9101.1.1 National Standards Adopted by the State Fire Marshal (SFM).</u> Standards as adopted by the SFM in California Building Code, Chapter 35 are duplicated here for ease of reference.

Whenever the Uniform Building Code refers to:

UBC Standard	It shall be construed to mean:
9-1	NFPA 13
9-2	NFPA 14
9-3	NFPA 13R

9101.1.2 California State Fire Marshal (SFM) Standards.

<u>SFM 12-4-100</u>	Smoke Ventilators.
<u>SFM 12-7-3</u>	Fire-testing Furnace.
SFM 12-8-100	Room Fire Tests for Wall and Ceiling Materials.

<u>The State Fire Marshal standards referred to above are found in the California Code of Regulations, Title 24, Part 12.</u>

9101.1.3 [For SFM] National Standards.

- 1. NFPA 11,1998 Edition, Low-Expansion Foams
- 2. NFPA 11A, 1999 Edition, Medium- and High-Expansion Foam Systems
- 3. NFPA 12, 1998 Edition, Carbon Dioxide Extinguishing Systems
- 4. NFPA 12A,1997 Edition, Halon 1301 Fire Extinguishing Systems
- 5. NFPA 13, 1999 Edition, The Installation of Automatic Sprinkler Systems, as amended.
- <u>6. NFPA 13D, 1999 Edition, Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes</u>
- 7. NFPA 13R, 1999 Edition, Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height
- 8. NFPA 14, 2000 Edition, Installation of Standpipe, Private Hydrant, and Hose Systems

- 9. NFPA 15, 1996 Edition, Water Spray Fixed Systems for Fire Protection
- 10. NFPA 16, 1999 Edition, Installation of Deluge, Foam-Water Sprinkler and Foam-Water Spray Systems
- 11. NFPA 17, 1998 Edition, Dry Chemical Extinguishing Systems
- 12. NFPA 17A, 1998 Edition, Wet Chemical Extinguishing Systems.
- 13. NFPA 20, 1999 Edition, Installation of Stationary Pumps for Fire Protection
- 14. NFPA 22, 1998 Edition, Water Tanks for Private Fire Protection
- 15. NFPA 24, 1995 Edition, Installation of Private Fire Service Mains and Their Appurtenances
- 16. NFPA 37, 1998 Edition, Installation and Use of Stationary Combustion Engines and Gas Turbines
- 17. NFPA 50, 1996 Edition, Bulk Oxygen Systems at Consumer Sites
- 18. NFPA 54, 1996 Edition, National Fuel Gas Code
- 19. NFPA 58, 1998 Edition, Standard for the Storage and Handling of Liquefied Petroleum Gases.
- 20. NFPA 72, 1999 Edition, National Fire Alarm Code, as amended. [The SFM does not adopt NFPA 72®, 1999 Edition, Chapter 8.]
- 21. NFPA 92 A, 2000 Edition, Smoke-Control Systems
- <u>20.1 NFPA 72®, 1996 Edition, National Fire Alarm Code, as amended, Chapter 2 "Household Fire Warning Equipment."</u>
- 22. NFPA 99, 1999 Edition, Health Care Facilities, Chapter 4, Gas and Vacuum Systems.
- 23. NFPA 99 C. 1999 Edition. Gas and Vacuum Systems
- 24. NFPA 253, 2000 Edition, Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source
- 25. NFPA 2001, 2000 Edition, Clean Agent Fire Extinguishing Systems
- <u>26. FM 3011- Approval Standard for Central Station Service for Fire Alarm and Protective Equipment Supervision, 1999 edition.</u>
- 26. UL 13, Power-limited Circuit Cables, 4 Second Edition 1996.
- 27. UL 38, Manually Actuated Signaling Boxes, Seventh Edition, March 26, 1999, with revisions through April 28, 2000.

- 28. UL 193, Alarm Valves for Fire-Protection Service, Ninth Edition, March 24, 1993.
- 29. UL 217, Single- and Multiple-Station Smoke Alarm, as amended, Fifth Edition, 1997.
- 30. UL 228, Door Closers/Holders, with or without Integral Smoke Alarms Fourth Edition, April 29, 1997, with revisions through January 21, 1999.
- 31. UL 260, Dry Pipe and Deluge Valves for Fire Protection Service, Sixth Edition, May 27, 1994, with revisions through February 15, 1999.
- 32. UL 262, Gate Valves for Fire Protection Service, Seventh Edition, May 27, 1994, with revisions through January 28, 1998.
- 33. UL 268, Smoke Detectors for Fire Protective Signaling Systems, as amended, Fourth Edition, December 30, 1996, with revisions through January 4, 1999.
- 34. UL 268A, Smoke Detectors for Duct Application, as amended, Third Edition, May 15, 1998.
- 35. UL 312, Check Valves for Fire-Protection Service, Eighth Edition, June 2, 1993, with revisions through February 17, 1994.
- 36. UL 346, Waterflow Indicators for Fire Protective Signaling Systems, Fourth Edition, 1994.
- 37. UL 464, Audible Signal Appliances Seventh Edition, February 23, 1996, with revisions through May 11, 1999.
- 38. UL 497B, Protectors for Data Communication and Fire Alarm Circuits, Second Edition, December 28, 1993, with revisions through October 20, 1994.
- 39. UL 521, Heat Detectors for Fire Protective Signaling Systems, Seventh Edition, February 19, 1999.
- 40. UL 539, Single- and Multiple-Station Heat Detectors, Fourth Edition, 1995.
- 41. UL 632. Electrically Actuated Transmitters. Sixth Edition. 1994.
- 42. UL 753, Alarm Accessories for Automatic Water Supply Valves for Fire Protection Service, Sixth Edition. 1994.
- 43. UL 813, Commercial Audio Equipment, Seventh Edition, December 13, 1996, with revisions through March, 30, 1999.
- 44. UL 864, Control Units for Fire Protective Signaling Systems, as amended, Eighth Edition, November 27, 1996, with revisions through March 30, 1999.
- 45. UL 884, Underfloor Electric Raceways and Fittings, Eighth Edition, 1987 Tenth Edition, 1998.
- 46. UL 913, Intrinsically Safe Apparatus for Use in Class I, II, and III, Division 1, Hazardous Locations, Fifth Edition, February 21, 1997, with revisions dated February 24, 1997.

- <u>45.1 47.</u> UL 924, Emergency Lighting and Power Equipment, <u>Eighth Edition</u>, 1999—Seventh <u>Edition</u>, November 29, 1990, with revisions through November 24, 1993.
- 48.UL 985, Household Fire Warning System Units, as amended, Fifth Edition, May 26, 2000.
- 49. UL 1091, Butterfly Valves for Fire Protection Service, Fifth Edition, 1994.
- 50. UL 1424, Cables for Power-limited Fire Protective Signaling Circuits, Second Edition, 1996.
- 51. UL 1480, Speakers for Fire Protective Signaling Systems Fourth Edition, July 28, 1998.
- 52. UL 1481, Power Supplies for Fire Protective Signaling Systems, Fourth Edition, April 9, 1999.
- 53. UL 1711, Amplifiers for Fire Protective Signaling Systems, First Edition, January 5, 1987, with revisions October 12, 1992.
- 54. UL 1730, Smoke Detector Monitors and Accessories (annunciators) for Individual Living Units of Multifamily Residences and Hotel/Motel Rooms, Third Edition, September 18, 1998, with revisions through May 17, 1999.
- 55. UL 1971, Signaling Devices for the Hearing Impaired, Second Edition, October 17, 1995, with revisions through May 24, 2000.
- 56. UL 1484, Residential Gas Detectors, Third Edition, November 30, 1994, with revisions dated December 1, 1994
- 57. UL 1994, Low Level Path Marking and Lighting Systems, Sixth Edition, 1994.
- 58. UL 2034, Single and Multiple Station Carbon Monoxide Alarms, Second Edition, October 29, 1996, with revisions through June 2, 1999.
- 59. UL 2079, Tests for Fire Resistance of Building Joint Systems, Third Edition, July31, 1998.
- 60. FM Class No. 3260, Flame Radiation Detectors for Automatic Fire Alarm Signaling, February 1994 Edition.

9102 [For SFM] AMENDMENTS TO NATIONAL STANDARDS

9102.1 [SFM] NFPA 72, 1999 Edition, as amended.

Amend Section 1-5.2.6, second paragraph as follows:

For a combination system, the secondary supply capacity required above shall include the load of any non-fire related equipment, functions, or features. which are not automatically disconnected upon transfer of operating power to the secondary supply. (The balance of the section text is to remain unchanged.)

Delete the last sentence of Section 1-5.4.8 as follows:

If automatically turning of the alarm verification appliances is permitted by the authority having jurisdiction, the alarm shall not be turned off in less than 5 minutes.

Delete Exception No 1.

<u>Exception No 1:</u> If otherwise permitted by the authority having jurisdiction, the 5 minute requirement shall not apply.

Renumber Exception No 2 to No 1.

Exception No 2 1: If permitted by the authority having jurisdiction, subsequent actuation of another addressable initiating device of the same type in the same room or space shall not be required to cause the notification appliance(s) to reactivate.

Add a Section 1-5.4.7.1 as follows:

Sec. 1-5.4.7.1. Supplementary Audible Notification Appliances.

Every public, private or parochial school building having an occupant load of fifty (50) or more students or more than one classroom shall sound the California uniform fire alarm signal as described in Education Code Sections 32002, 32003 and 32004.

EXCEPTION: When a fire alarm system having a distinctive tone, and which is used for no other purpose, is installed, the manner of sounding such alarm shall not be subject to the provisions of Education Code Sections 32002, 32003 and 32004.

Amend Section 1.5.5.4, as follows:

Sec. 1.5.5.4. Wiring. The installation of all wiring, cable and equipment shall be in accordance with the California Electrical Code, and specifically with Article 760, 770 and 800, where applicable. Optical fiber cables shall be protected against mechanical injury in accordance with Article 760.

Amend Section 1-5.7.1.2 as follows:

<u>Sec. 1-5.7.1.2. Zone of Origin.</u> Fire alarm systems serving two or more zones shall identify the zone of origin of the alarm initiation by annunciation or coded signal as required by the authority having jurisdiction.

Add a new SFM subsection 1-6.2.2 (3) as follows:

(3) [For SFM] The owner's manual and the record drawings shall be provided at a location approved by the authority having jurisdiction.

Amend Section 2-8.1 as follows

Sec. 2-8.1 Each manual fire alarm box shall be securely mounted. The operable part of each manual fire alarm box shall be not less than $3^{-1}/_{2}$ ft (1.1 m) and not more than 4 ft (1.22m) above floor level.

Amend Section 2-8.2.4 by adding an exception as follows:

EXCEPTION: When individual dwelling units are served by a single exit stairway, additional boxes at other than the ground floor may be omitted.

Add a Section 3-8.3.2.3.1(b) as follows:

Sec. 3-8.3.2.3.1(b) A smoke detector that is continuously subjected to a smoke concentration above alarm threshold does not delay the system functions of 1-5.4 by more than *30 seconds*.

Add a Section 3-8.4.1.3.3.3(3) c and amend Section 3-4.2.2.2 as follows:

Sec. 3-8.4.1.3.3.3 (3)

c. Installation of listed circuit integrity (C.l.) cable, which meets or exceeds a two-hour fire-resistance rating.

Sec. 3-4.2.2.2:

(b) Where the vertically run conductors are contained in a 2-hour rated cable assembly, or enclosed (installed) in a 2-hour rated enclosure or a listed circuit integrity (C.I.) cable, which meets or exceeds a 2-hour fire resistive rating.

Amend Sections 4-3.2.1 and 4-3.3.1 as follows:

<u>Sec. 4-3.2.1.</u> Audible notification appliances intended for operation in the public mode shall have a sound level of not less than 75dBA at 10 feet) (3m) or more than 110dBA at the minimum hearing distance from the audible appliance.

<u>Sec. 4-3.3.1</u>. <u>Private Mode.</u> Audible notification appliances intended for operation in the private mode shall have a sound level of not less than 45dBA at 10 feet (3m) or more than 110dBA at the minimum hearing distance from the audible appliance.

Add a Section 4-4.5 as follows:

Notification Appliances for the Hearing Impaired-

Approved notification appliances for the hearing impaired shall be installed in the following areas:

- 1. Restrooms
- 2. Corridors
- 3. Music practice rooms
- 4. Band rooms
- 5. Gymnasiums
- 6. Multipurpose rooms
- 7. Occupational shops
- 8. Occupied rooms where ambient noise impairs hearing of the fire alarm
- 9. Lobbies
- 10. Meeting rooms
- 11. Any other area for common use

NOTE: This section is also adopted by the Division of the State Architect, Access Compliance for buildings not regulated by the State Fire Marshal.

Amend Section 2-4.2.1 of NFPA 72, 1996.

9102.1.1 [For SFM] NFPA 72®, 1996 Edition, Chapter 2, as amended.

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{Amend Section 2-4.2.1 of NFPA 72, 1996} - This amendment is being relocated to the appropriate Section, 2-4 Equipment Performance as shown below.

Chapter 2 Household Fire Warning Equipment

2-1 Introduction.

2-1.1* Scope.

This chapter contains minimum requirements for the selection, installation, operation, and maintenance of fire warning equipment for use within family living units. The requirements of the other chapters shall not apply.

Exception: Where specifically indicated.

2-1.2 Purpose.

- **2-1.2.1** Household fire warning systems shall be designed and installed to provide sufficient warning of a fire to enable occupants to escape. It is recognized that household fire warning systems might not be of material assistance to all occupants, such as persons intimate with the ignition of a fire.
- **2-1.2.2** This chapter is primarily concerned with life safety, not with protection of property. It presumes that a family has an exit plan.

2-1.3 General.

- **2-1.3.1** A control and associated equipment, a multiple or single station alarm(s), or any combination thereof shall be permitted to be used as a household fire warning system, provided the requirements of 2-1.3.7 are met.
- **2-1.3.2** Detection and alarm systems for use within the protected household are covered by this chapter.
- **2-1.3.3** Supplementary functions, including the extension of an alarm beyond the household, shall be permitted and shall not interfere with the performance requirements of this chapter.
- 2-1.3.4 Where the authority having jurisdiction requires a household fire warning system to

comply with the requirements of Chapter 4 or any other chapters of this code, the requirements of Section 2-2 shall still apply.

- 2-1.3.5 The definitions of Section 1-4 shall apply.
- **2-1.3.6** This chapter does not exclude the use of fire alarm systems complying with other chapters of this code in household applications, provided all of the requirements of this chapter are met or exceeded.
- **2-1.3.7** All devices, combinations of devices, and equipment to be installed in conformity with this chapter shall be approved or listed for the purposes for which they are intended.
- 2-1.3.8 A device or system of devices having materials or forms that differ from those detailed in this chapter shall be permitted to be examined and tested according to the intent of the chapter and, if found equivalent, shall be permitted to be approved.
- **2-1.3.9 Equivalency.** Nothing in this code is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this code, provided technical documentation is submitted to the authority having jurisdiction to demonstrate equivalency and the system, method, or device is approved for the intended purpose.

2-2 Basic Requirements.

2-2.1 Required Protection.

- **2-2.1.1*** This code requires the following detectors within the family living unit.
- **2-2.1.1.1** Smoke *alarms* shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each additional story of the family living unit, including basements and excluding crawl spaces and unfinished attics. In new construction, a smoke *alarm* also shall be installed in each sleeping room.
- **2-2.1.1.2*** For family living units with one or more split levels (i.e., adjacent levels with less than one full story separation between levels), a smoke *alarm* required by 2-2.1.1.1 shall be permitted for an adjacent lower level, including basements. (*See Figure A-2-2.1.1.2*.)

Exception: Where there is an intervening door between one level and the adjacent lower level, a smoke alarm shall be installed on the lower level.

2-2.1.1.3 Automatic sprinkler systems provided in accordance with NFPA 13D, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, or NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, shall be interconnected to sound alarm notification appliances throughout the dwelling where a fire warning system is provided.

2-2.2* Alarm Notification Appliances.

Each automatic alarm-initiating device shall cause the operation of an alarm that shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. The tests of audibility level shall be conducted with all household equipment that might be in operation at night in full operation.

Examples of such equipment are window air conditioners and room humidifiers. (See A-2-2.2 for additional information.)

2-2.2.1 In new construction, where more than one smoke *alarm* is required by 2-2.1, *smoke alarm* shall be arranged so that operation of any smoke *alarm* causes the alarm in all smoke *alarms*

within the dwelling to sound.

Exception: Configurations that provide equivalent distribution of the alarm signal.

2-2.2.2* Standard Signal. Newly installed alarm notification appliances used with a household fire warning system and single and multiple station smoke alarms shall produce the audible emergency evacuation signal described in ANSI S3.41, *Audible Emergency Evacuation Signal*. Signals from different notification appliances shall not be required to be synchronized.

2-2.3 Alarm Notification Appliances for the Hearing Impaired.

In a household occupied by one or more hearing impaired persons, each initiating device shall cause the operation of a visible alarm signal(s) in accordance with 2-4.4.2. Since hearing deficits are often not apparent, the responsibility for advising the appropriate persons shall be that of the hearing impaired party. The responsibility for compliance shall be that of the occupants of the family living unit.

Exception: A listed tactile signal shall be permitted to be employed.

2-3 Power Supplies.

2-3.1 General.

- **2-3.1.1** All power supplies shall have sufficient capacity to operate the alarm signal(s) for at least 4 continuous minutes.
- 2-3.1.2 There shall be a primary (main) and a secondary (standby) power source. For electrically powered household fire warning equipment, the primary (main) power source shall be ac; the secondary (standby) power source shall be a battery.
- Exception No. 1: Where the primary (main) power source is an emergency circuit or a legally required standby circuit capable of operating the system for at least 24 hours in the normal condition, followed by not less than 4 minutes of alarm, a secondary (standby) source shall not be required.
- Exception No. 2: Where the primary (main) power source is a circuit of an optional standby system capable of operating the system for at least 24 hours, followed by not less than 4 minutes of alarm, that meets the requirements for either an emergency system or a legally required standby system as defined in NFPA 70, National Electrical Code, Articles 700 and 701, respectively, a secondary (standby) supply shall not be required.
- Exception No. 3: Detectors and alarms powered from a monitored dc circuit of a control unit where power for the control unit meets the requirements of Section 2-3 and the circuit remains operable upon loss of primary (main) ac power.
- Exception No. 4: A detector and a wireless transmitter that serves only that detector shall be permitted to be powered from a monitored battery primary (main) source where part of a listed, monitored low power radio (wireless) system. A secondary (standby) source shall not be required.
- Exception No. 5: In existing construction, either an ac primary power source, as described in 2-3.2, or a monitored battery primary (main) power source, as described in 2-3.3, shall be permitted. A secondary (standby) source shall not be required.
- Exception No. 6: Visible notification appliances required by 2-4.4.2.
- <u>Exception No. 7: Where the primary (main) power source is non-electrical, a secondary (standby) source shall not be required.</u> The requirements of 2-3.5 shall apply.

2-3.2 Primary Power Supply — AC.

- **2-3.2.1** An ac primary (main) power source shall be a dependable commercial light and power supply source. A visible "power on" indicator shall be provided.
- **2-3.2.2** All electrical systems designed to be installed by other than a qualified electrician shall be powered from a source not in excess of 30 volts that meets the requirements for power limited fire alarm circuits as defined in NFPA 70, *National Electrical Code*, Article 760.
- **2-3.2.3** A restraining means shall be used at the plug-in of any cord connected installation.
- **2-3.2.4** AC primary (main) power shall be supplied either from a dedicated branch circuit or the unswitched portion of a branch circuit also used for power and lighting. Operation of a switch (other than a circuit breaker) or a ground-fault circuit-interrupter shall not cause loss of primary (main) power.

Exception No. 1: Single or multiple station alarms with a supervised rechargeable standby battery that provides at least 4 months of operation with a fully charged battery.

Exception No. 2: Where a ground-fault circuit-interrupter serves all electrical circuits within the household.

2-3.2.5 Neither loss nor restoration of primary (main) power shall cause an alarm signal.

Exception: An alarm signal shall be permitted within the household but shall not exceed 2 seconds.

2-3.2.6 Where a secondary (standby) battery is provided, the primary (main) power supply shall be of sufficient capacity to operate the system under all conditions of loading with any secondary (standby) battery disconnected or fully discharged.

2-3.3 Primary Power Supply — Monitored Battery.

Household fire warning equipment shall be permitted to be powered by a battery, provided that the battery is monitored to ensure that the following conditions are met:

- (a) All power requirements are met for at least 1 year of battery life, including monthly testing.
- (b) A distinctive audible trouble signal sounds before the battery is incapable of operating (from causes such as aging or terminal corrosion) the device(s) for alarm purposes.
- (c) For a unit employing a lock-in alarm feature, automatic transfer is provided from alarm to a trouble condition.
- (d) The unit is capable of producing an alarm signal for at least 4 minutes at the battery voltage at which a trouble signal is normally obtained, followed by not less than 7 days of trouble signal operation.
- (e) The audible trouble signal is produced at least once every minute for 7 consecutive days.
- (f) Acceptable replacement batteries are clearly identified by the manufacturer's name and model number on the unit near the battery compartment.
- (g) A readily noticeable, visible indication is displayed when a primary battery is removed from the unit.
- (h) Any unit that uses a nonrechargeable battery as a primary power supply that is capable of a 10-year or greater service life, including testing, and meets the requirements of 2-3.3(b) through (e) shall not be required to have a replaceable battery.

2-3.4 Secondary (Standby) Power Supply.

- **2-3.4.1** Removal or disconnection of a battery used as a secondary (standby) power source shall cause a distinctive audible or visible trouble signal.
- **2-3.4.2** Acceptable replacement batteries shall be clearly identified by manufacturer's name and model number on the unit near the battery compartment.
- 2-3.4.3 Where required by law for disposal reasons, rechargeable batteries shall be removable.

2-3.4.4 Automatic Recharging.

- **2-3.4.4.1** Automatic recharging shall be provided where a rechargeable battery is used as the secondary (standby) supply. The supply shall be capable of operating the system for at least 24 hours in the normal condition, followed by not less than 4 minutes of alarm. Loss of the secondary (standby) source shall sound an audible trouble signal at least once every minute.
- **2-3.4.4.2** The battery shall be recharged within 4 hours where power is provided from a circuit that can be switched on or off by means other than a circuit breaker, or within 48 hours where power is provided from a circuit that cannot be switched on or off by means other than a circuit breaker.
- **2-3.4.5** Where automatic recharging is not provided, the battery shall be monitored to ensure that the following conditions are met:
- (a) All power requirements are met for at least 1 year of battery life.
- (b) A distinctive audible trouble signal sounds before the battery capacity has been depleted below the level required to produce an alarm signal for 4 minutes.

2-3.5 Primary Power — Non-electrical.

A suitable spring-wound mechanism shall provide power for the non-electrical portion of a listed single station alarm. A visible indication shall be provided to show that sufficient operating power is not available.

2-4 Equipment Performance.

2-4.1 General.

The failure of any nonreliable or short-life component that renders the detector inoperable shall be readily apparent to the occupant of the living unit without the need for test.

2-4.2 Smoke Alarms and Smoke Detectors.

Each smoke alarm and smoke detector shall detect abnormal quantities of smoke that can occur in a dwelling, shall properly operate in the normal environmental conditions of a household, and shall be in compliance with ANS/UL 268, Standard for Safety Smoke Detectors for Fire Protective Signaling Systems, or ANS/UL 217, Standard for Safety Single and Multiple Station Smoke Alarms.

<u>Sec. 2-4.2.1</u> The alarm verification feature shall not be used for household fire warning equipment. {This text is continued from CBC, Chapter 35}

2-4.3* Heat Alarms and Heat Detectors.

- **2-4.3.1** Each heat detector, including a heat detector integrally mounted on a smoke detector, shall detect abnormally high temperature or rate-of-temperature rise, and all such detectors shall be listed for not less than 50-ft (15-m) spacing.
- 2-4.3.2 Fixed temperature detectors shall have a temperature rating at least 25°F (14°C) above the normal ambient temperature and shall not be rated 50°F (28°C) higher than the maximum anticipated ambient temperature in the room or space where installed.

2-4.4 Alarm Signaling Intensity.

2-4.4.1 All alarm-sounding appliances shall have a minimum rating of 85 dBA at 10 ft (3 m).

Exception: An additional sounding appliance intended for use in the same room as the user, such as a bedroom, may have a sound pressure level as low as 75 dBA at 10 ft (3 m).

2-4.4.2 Visible notification appliances used in rooms where a hearing impaired person(s) sleeps shall have a minimum rating of 177 candela for a maximum room size of 14 ft \square 16 ft (4.27 m \square 4.88 m). For larger rooms, the visible notification appliance shall be located within 16 ft (4.88 m) of the pillow. Visible notification appliances in other areas shall have a minimum rating of 15 candela.

<u>Exception: Where a visible notification appliance in a sleeping room is mounted more than 24 in.</u> (610 mm) below the ceiling, a minimum rating of 110 candela shall be permitted.

2-4.5 Control Equipment.

- **2-4.5.1** The control equipment shall be automatically restoring upon restoration of electrical power.
- **2-4.5.2** The control equipment shall be of a type that "locks in" on an alarm condition. Smoke detection circuits shall not be required to lock in.
- **2-4.5.3** If a reset switch is provided, it shall be of a self-restoring type.
- **2-4.5.4** An alarm-silencing switch or an audible trouble-silencing switch shall not be required to be provided.

Exception: Where the switch's silenced position is indicated by a readily apparent signal.

<u>2-4.5.5</u> Each electrical fire warning system and each single station smoke detector shall have an integral test means to allow the householder to check the system and the sensitivity of the detector(s).

2-4.6 Monitoring Integrity of Installation Conductors.

All means of interconnecting initiating devices or notification appliances shall be monitored for the integrity of the interconnecting pathways up to the connections to the device or appliance so that the occurrence of a single open or single ground fault, which prevents normal operation of the system, is indicated by a distinctive trouble signal.

Exception No. 1: Conductors connecting multiple station alarms, provided a single fault on the wiring cannot prevent single station operation of any of the interconnected detectors.

Exception No. 2: Circuits extending from single or multiple station alarms to required remote notification appliances, provided operation of the test feature on any detector causes all

2-4.7 Combination System.

- **2-4.7.1** Where common wiring is employed for a combination system, the equipment for other than the fire warning signaling system shall be connected to the common wiring of the system so that short circuits, open circuits, grounds, or any fault in this equipment or interconnection between this equipment and the fire warning system wiring does not interfere with the supervision of the fire warning system or prevent alarm or trouble signal operation.
- 2-4.7.2 In a fire-burglar system, the operation shall be as follows:
- (a) A fire alarm signal shall take precedence or be clearly recognizable over any other signal even when the non-fire alarm signal is initiated first.
- (b) Distinctive alarm signals shall be used so that fire alarms can be distinguished from other functions such as burglar alarms. The use of a common sounding appliance for fire and burglar alarms shall be permitted where distinctive signals are used. (See 2-2.2.2.)

2-4.8 Low Power Wireless Systems.

Household fire warning systems utilizing low power wireless transmission of signals within the protected household shall comply with the requirements of Section 3-13.

Exception: Paragraph 3-13.4.5 shall not apply.

2-4.9 Supervising Station Systems.

2-4.9.1 Any communications method described in Section 4-5 shall be permitted for transmission of signals from household fire warning equipment to a supervising station. All of the provisions of Section 4-5 shall apply, as appropriate.

Exception No. 1: Only one telephone line shall be required for one- and two-family residences.

Exception No. 2: Each DACT shall be required to be programmed to call a single DACR number only.

Exception No. 3: Each DACT serving a one- or two-family residence shall transmit a test signal to its associated receiver at least monthly.

2-4.9.2* On receipt of an alarm signal from household fire warning equipment, the supervising station shall immediately (within 90 seconds) retransmit the alarm to the public fire communications center.

Exception: The supervising station shall be permitted to contact the residence for verification of an alarm condition and, where acceptable assurance is provided within 90 seconds that the fire service is not needed, retransmission of an alarm to the public service fire communications center shall not be required.

2-5 Installation.

2-5.1 General.

2-5.1.1 General Provisions.

- 2-5.1.1.1* All equipment shall be installed in a workmanlike manner.
- **2-5.1.1.2** All devices shall be so located and mounted that accidental operation is not caused by jarring or vibration.
- **2-5.1.1.3** All installed household fire warning equipment shall be mounted so as to be supported independently of its attachment to wires.
- **2-5.1.1.4** All equipment shall be restored to normal as promptly as possible after each alarm or test.
- **2-5.1.1.5** The supplier or installing contractor shall provide the owner with:
- (a) An instruction booklet illustrating typical installation layouts.
- (b) Instruction charts describing the operation, method and frequency of testing, and proper maintenance of household fire warning equipment.
- (c) Printed information for establishing a household emergency evacuation plan.
- (d) Printed information to inform owners where they can obtain repair or replacement service, and where and how parts requiring regular replacement (such as batteries or bulbs) can be obtained within 2 weeks.

2-5.1.2 Interconnection of Detectors or Multiple Station Alarms.

- (a) Where the interconnected wiring is unsupervised, no more than 18 multiple station alarms shall be interconnected in a multiple station configuration.
- (b) Where the interconnecting wiring is supervised, the number of interconnected detectors shall be limited to 64.
- **2-5.1.2.1** Interconnection that causes other alarms to sound shall be limited to an individual family living unit. Remote annunciation from single or multiple station alarms shall be permitted.
- **2-5.1.2.2** No more than 12 smoke alarms shall be interconnected in a multiple station connection. The remainder of the alarms shall be permitted to be of other types.

2-5.2* Alarm and Detector Location and Spacing.

2-5.2.1 Smoke Alarms and Smoke Detectors.

- <u>2-5.2.1.1</u> Smoke alarms and Smoke detectors in rooms with ceiling slopes greater than 1 ft in 8 ft (1 m in 8 m) horizontally shall be located at the high side of the room.
- **2-5.2.1.2** A *Smoke alarms and* smoke detector installed in a stairwell shall be so located as to ensure that smoke rising in the stairwell cannot be prevented from reaching the detector by an intervening door or obstruction.

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- **2-5.2.1.3** A *Smoke alarms and* smoke detector installed to detect a fire in the basement shall be located in close proximity to the stairway leading to the floor above.
- <u>2-5.2.1.4</u> The <u>Smoke alarms and smoke detector installed to comply with 2-2.1.1.1 on a story without a separate sleeping area shall be located in close proximity to the stairway leading to the floor above.</u>
- 2-5.2.1.5 Smoke alarms and smoke detectors shall be mounted on the ceiling at least 4 in. (102 mm) from a wall or on a wall with the top of the detector not less than 4 in. (102 mm) nor more than 12 in. (305 mm) below the ceiling.

Exception: Where the mounting surface might become considerably warmer or cooler than the room, such as a poorly insulated ceiling below an unfinished attic or an exterior wall, the detectors shall be mounted on an inside wall.

- <u>2-5.2.1.6 Smoke alarms and smoke detectors shall not be located within kitchens or garages, or in other spaces where temperatures can fall below 40°F (4°C) or exceed 100°F (38°C). Smoke detectors shall not be located closer than 3 ft (0.9 m) horizontally from:</u>
- (a) The door to a kitchen.
- (b) The door to a bathroom containing a tub or shower.
- (c) The supply registers of a forced air heating or cooling system, and outside of the airflow from those registers.

Exception: Detectors specifically listed for the application.

2-5.2.2* Heat Detectors and *Heat Alarms*.

- **2-5.2.2.1** On smooth ceilings, heat detectors shall be installed within the strict limitations of their listed spacing.
- 2-5.2.2 For sloped ceilings having a rise greater than 1 ft in 8 ft (1 m in 8 m) horizontally, the detector shall be located on or near the ceiling at or within 3 ft (0.9 m) of the peak. The spacing of additional detectors, if any, shall be based on a horizontal distance measurement, not on a measurement along the slope of the ceiling.
- 2-5.2.2.3* Heat detectors and heat alarms shall be mounted on the ceiling at least 4 in. (102 mm) from a wall or on a wall with the top of the detector not less than 4 in. (102 mm) nor more than 12 in. (305 mm) below the ceiling.

Exception: Where the mounting surface might become considerably warmer or cooler than the room, such as a poorly insulated ceiling below an unfinished attic or an exterior wall, the detectors shall be mounted on an inside wall.

<u>2-5.2.2.4</u> In rooms with open joists or beams, all ceiling-mounted detectors shall be located on the bottom of such joists or beams.

2-5.2.2.5* Detectors installed on an open-joisted ceiling shall have their smooth ceiling spacing reduced where this spacing is measured at right angles to solid joists; in the case of heat detectors, this spacing shall not exceed ¹/₂ of the listed spacing.

2-5.3 Wiring and Equipment.

The installation of wiring and equipment shall be in accordance with the requirements of NFPA 70, National Electrical Code, Article 760.

2-6 Maintenance and Tests.

2-6.1* Maintenance.

Where batteries are used as a source of energy, they shall be replaced in accordance with the recommendations of the alarm equipment manufacturer.

Exception: Batteries described in 2-3.3(h).

2-6.2* Tests.

<u>2-6.2.1 Single and Multiple Station Smoke Alarms.</u> Homeowners shall inspect and test smoke alarms and all connected appliances in accordance with the manufacturer's instructions at least monthly.

<u>2-6.2.2 Fire Alarm Systems.</u> Homeowners shall test systems in accordance with the manufacturer's instructions and shall have every household fire alarm system having a control panel tested by a qualified service technician at least every 3 years. This test shall be conducted according to the methods of Chapter 7.

2-7 Markings and Instructions.

- All household fire warning equipment or systems shall be plainly marked with the following information on the unit:
- (a) Manufacturer's or listee's name, address, and model number;
- (b) A mark or certification that the unit has been approved or listed by a testing laboratory:
- (c) Electrical rating (where applicable);
- (d) Temperature rating (where applicable):
- (e) Spacing rating (where applicable);
- (f) Operating instructions;
- (g) Test instructions;
- (h) Maintenance instructions;
- (i) Replacement and service instructions.

Exception: Where space limitations prohibit inclusion of 2-7(g), (h), and (i), a label or plaque suitable for permanent attachment within the living unit, or a manufacturer's manual, shall be

provided with the equipment and referenced on the equipment. In the case of a household fire warning system, the required information shall be prominently displayed at the control panel.

<u>Sec. 2-4.2.1</u> The alarm verification feature shall not be used for household fire warning equipment.

Add to Section 3-8.4.1.3.5.5.1 as follows:

Sec. 3-8.4.1.3.5.5.1. Special fire alarm provisions for occupancies having floors used for human occupancy located more than 75 feet (22 860 mm) above the lowest level of the fire department vehicle access, are found in Title 24, Part 2, Chapter 4, of the California Building Code. Those provisions include providing a central control station. The requirements provided for, in a fire command center, may be included within the central control station.

9102.3 [For SFM] UL 217, 1997

UL 217, 1997 Edition amend as follows:

Add a Section 6A.1 as follows: Sec. 6A.1. Each single- and multiple-station smoke alarm may be provided with an automatically resettable alarm silencing means that has a fixed or variable time setting and that silences the smoke alarm for a maximum of 15 minutes. Alarm silencing shall not disable the smoke alarm. It may reduce the sensitivity to no more than 4 percent obscuration (0.0177 O.D. per foot). Each device shall operate a distinctive audible trouble signal while in the silence mode. This may be done with a short beep similar to the low-battery signal or by visible indication. Following the silenced period, the smoke alarm shall restore automatically to its intended operation. Silencing of one smoke alarm of a multiple-station system shall not prevent an alarm operation from the other smoke alarm in the system. See paragraphs 33.10 and 33.11.

9102.4 [For SFM] UL 268, 1996 Edition.

Amend Section 26.2 F as follow:

F. A circuit for a supplementary signal annunciator, signal-sounding appliance, motor controller, or similar appliance, provided that a break, short or ground fault in no way affects the operation of the detector other than to cause the omission of the supplementary feature.

9102.5 [For SFM] UL 268A, 1998 Edition.

Amend Section 27.1, Exception F, as follows:

F. A circuit for a supplementary signal annunciator, signal-sounding appliance, motor controller or similar appliance, provided that a break, short or ground fault in no way affects the operation of the air duct smoke detector, except for omission of the supplementary feature.

9102.6 [For SFM] UL 864, 1996 Edition amend as follows:

<u>Amend Figure No. 3-1 on page 7 as follows: RETARD-RESET-RESTART PERIOD - MAXIMUM</u> 30 SECONDS

Amend Section 6.2 as follows:

If an alarm verification feature is provided, the maximum retard-reset period before an alarm signal can be confirmed and indicated at the control unit, including any control unit reset time and the power-up time for the detector to become operational for alarm, shall not exceed 30 seconds. (The balance of the section text is to remain unchanged.)

Delete exception to Section 6.5.

Add a Section 6.7 as follows: Smoke detectors connected to an alarm verification feature shall not be used as releasing devices.

EXCEPTION: Smoke detectors, which operate their releasing function immediately upon alarm actuation independent of alarm verification feature.

Amend Section 21.22 as follows:

The maximum retard-reset-restart period of alarm verification to a system control unit, including any time delay due to system reset and power-up time of the smoke detectors to become operational for alarm, shall not exceed 30 seconds. (The balance of the section text is to remain unchanged.)

Amend Section 49.1.14 as follows:

THIS UNIT INCLUDES AN ALARM VERIFICATION FEATURE THAT WILL RESULT IN A DELAY OF THE SYSTEM ALARM SIGNAL FROM THE INDICATED CIRCUITS. THE TOTAL DELAY (CONTROL UNIT PLUS SMOKE DETECTOR) SHALL NOT EXCEED 30 SECONDS. (The balance of the section text is to remain unchanged.)

9102.7 [For SFM] NFPA 13, 1999 Edition.

i. 6-4.5.8

Add a sentence after the first sentence as follows:

Where pipe is used for sway bracing, it shall have a wall thickness of not less than Schedule 40.

Revise the Exception to 6-4.5.8.5 as follows:

<u>Materials, other than pipe, not specifically included</u> in Table 6-4.5.8.5 ... (The balance of the exception text is to remain unchanged.)

Also, delete the Exception No. 1 of Section 6-4.5.9 and renumber Exception No. 2 to No.1

Also, delete the portion of Table 6-4.5.9 related to lag screws.

Adopt entire Section_6-4.7.4

APPENDIX III-AA - FIRE FLOW REQUIREMENTS FOR BUILDINGS

[For SFM]

Section 1, 3 & 5 The SFM is proposing to bring forward this existing California amendment to the 2000 UFC. Section to be renumbered by California Building Standards Commission (CBSC) during codification.

APPENDIX III-BB - FIRE HYDRANT LOCATIONS AND DISTRIBUTION FOR BUILDINGS

[For SFM]

Section 1, 3 & 5 The SFM is proposing to bring forward this existing California amendment to the 2000 UFC. Section to be renumbered by California Building Standards Commission (CBSC) during codification.